

REDMIL 2026

TOWARDS A CRITICAL MEDIA LITERACY OF CONVERSATIONAL TECHNOLOGIES

DESIGNING AND EVALUATING A CHATBOT AS AN EDUCATIONAL TOOL

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SOCIETAL ISSUES

> A new type of public access a technology with a high level of technical complexity, giving access to various new uses to that public

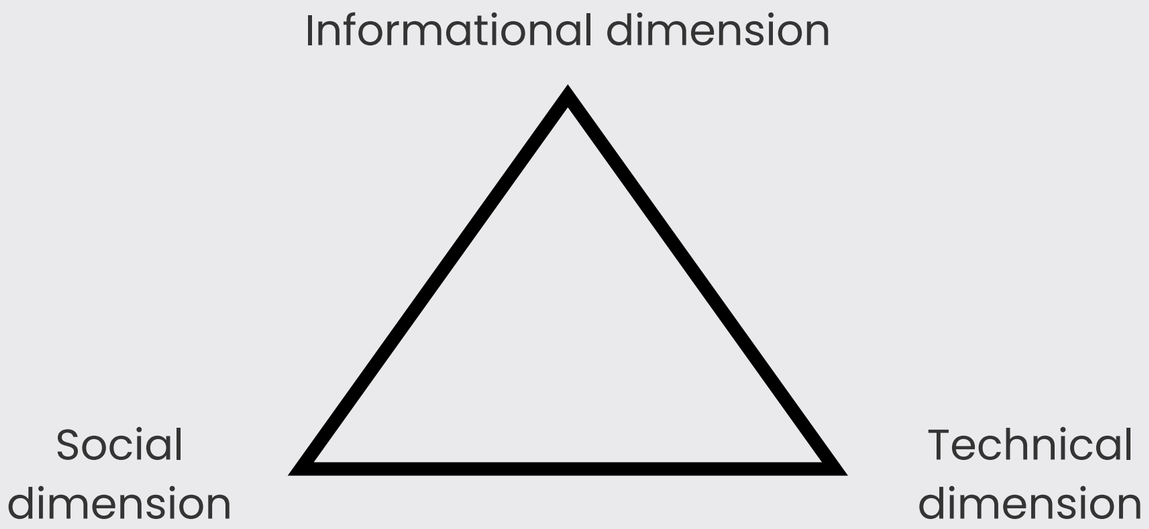
> Fictional imaginaries, metaphors around the technical vocabulary and misconceptions about functioning nourish a moral panic (Cohen, 1972)

> Media coverage, social networks, prompt engineering, ... give publicity to specific uses

>> What skills are required to appropriate (or not) this device in a critical way?

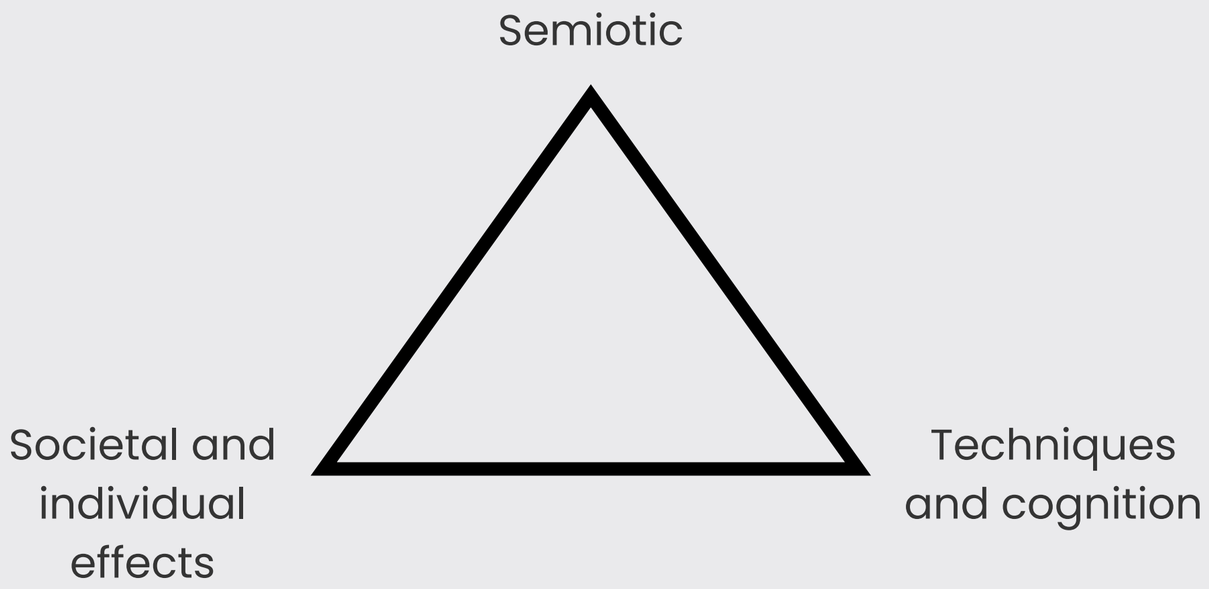
“HOW TO DEVELOP A CRITICAL MEDIA EDUCATION REGARDING CONVERSATIONAL AND INTERACTIVE TECHNOLOGIES?”

THEORETICAL FRAMEWORK



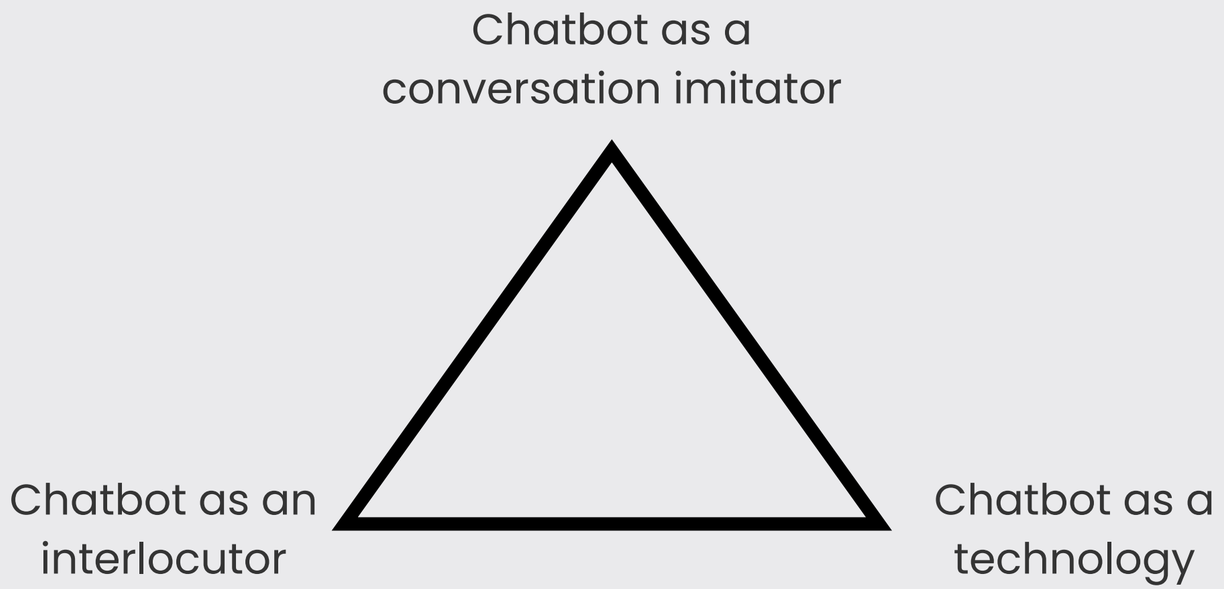
(Fastrez, 2010)

THEORETICAL FRAMEWORK



(Fastrez, 2010)

THEORETICAL FRAMEWORK



THEORETICAL FRAMEWORK

Chatbot as a conversation imitator	**Chatbot as an interlocutor**	**Chatbot as a technology**
What is conversation?	What roles are performed by chatbots?	How techniques influence the way you use chatbots?
...between humans?	How and why do they pass as human-like?	What affordances do what?
...between humans and machines?	What are the implications of anthropomorphization?	Is a technical education required?

THEORETICAL FRAMEWORK

Chatbot as a conversation imitator	**Chatbot as an interlocutor**	**Chatbot as a technology**
What is conversation?	What roles are performed by chatbots?	How techniques influence the way you use chatbots?
Human conversation (Le Breton, 2024)	Anthropomorphization (Abercrombie *et al.*, 2023) ; acceptance (Balaji *et al.*, 2022)	Technological affordances (Davis, 2023)
Human-machine communication (Guzman, 2020) ; Artificial Sociality (Natale & Depounti, 2024) ; computer-mediated communication (Marcoccia, 2000 ; Beattie *et al.*, 2020)	Personnification (Airenti, 2018)	Mental models (Norman, 1983) ; technical education (Simondon, 1953)

EPISTEMOLOGY

> Why should we educate to chatbots?
> Why not pursuing an AI literacy framework?
> What approach of media literacy?

EPISTEMOLOGY

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"[A chatbot is] a system that can simulate conversation with users in natural language. Through an interface and by using AI techniques, it collects user prompts and provide responses tailored to those prompts."
(Gkinko & Elbanna, 2022; Balaji *et al.*, 2022)

EPISTEMOLOGY

> Why should we educate to chatbots?
> Why not pursuing an AI literacy framework?
> What approach of media literacy?

→ Anthropomorphization (Abercrombie *et al.*, 2023; Airenti, 2018)
→ Effects of conversational interfaces (Denouël, 2008)
→ Metaphors behind technical vocabulary (Andler, 2023)
→ Impression of personalization and intimacy (Balaji *et al.*, 2022)

EPISTEMOLOGY

> Why should we educate to chatbots?

> Why not pursuing an AI literacy framework? (*and why media literacy then?*)

> What approach of media literacy?

"*A medium is a recognizable human activity that organizes reality into readable texts for engagement*" (Anderson & Meyer, 1988)

AI is not a medium, but it supports and transforms media activities (Fastrez, 2024)

EPISTEMOLOGY

> Why should we educate to chatbots?

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> What approach of media literacy?

"A medium is a recognizable human activity that organizes reality into readable texts for engagement" (Anderson & Meyer, 1988)

"[*An automated media is*] *Any recognizable human activity that operates a computational automaton to organize reality into readable texts for engagement.*" (Claes *et al.*, 2025)

EPISTEMOLOGY

> Why should we educate to chatbots?

> Why not pursuing an AI literacy framework? (*and why media literacy then?*)

> What approach of media literacy?

Human-chatbot interaction organizes reality (relationship between technologies and society) into readable texts (conversation in natural language) for engagement (reflexivity and cognition, among other things)

EPISTEMOLOGY

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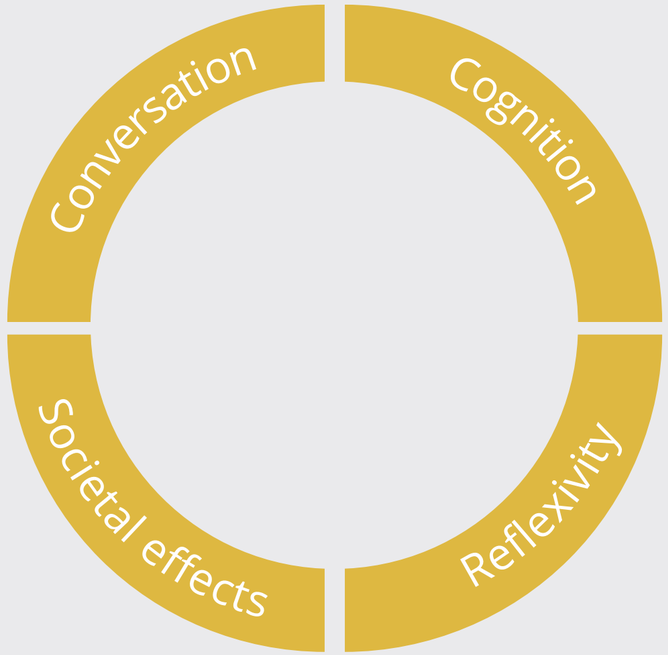
<u>Key concepts? Competences?</u>
→ Initial goal was to go by competences (Fastrez, 2010; Hobbs, 2010; Jenkins *et al.*, 2006; Landry & Letellier, 2016)
→ Currently in redefinition, with a better integration of key concepts (Dezuanni & Notley, 2020) as a way to develop a better comprehension of our object and study the skills developed after the acquisition of this knowledge

METHODOLOGY

KNOWLEDGE FRAMEWORK → ACTIVITY CONCEPTION → CHATBOT EVALUATION

Key concepts of media education (Dezuanni & Notley, 2020):

- Media technologies
- Media representations
- Media audiences
- Media institutions
- Media languages
- Media relationships

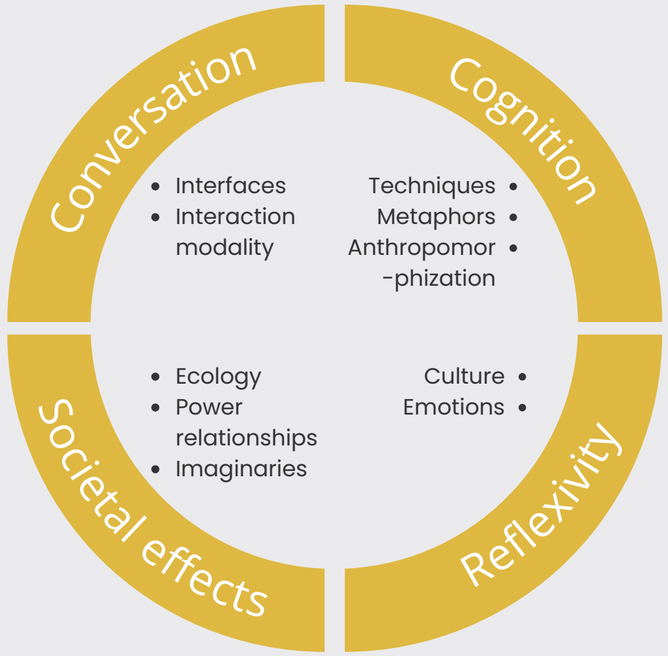


Three dimensions of media objects (Fastrez, 2010):

- Informational
- Social
- Technical

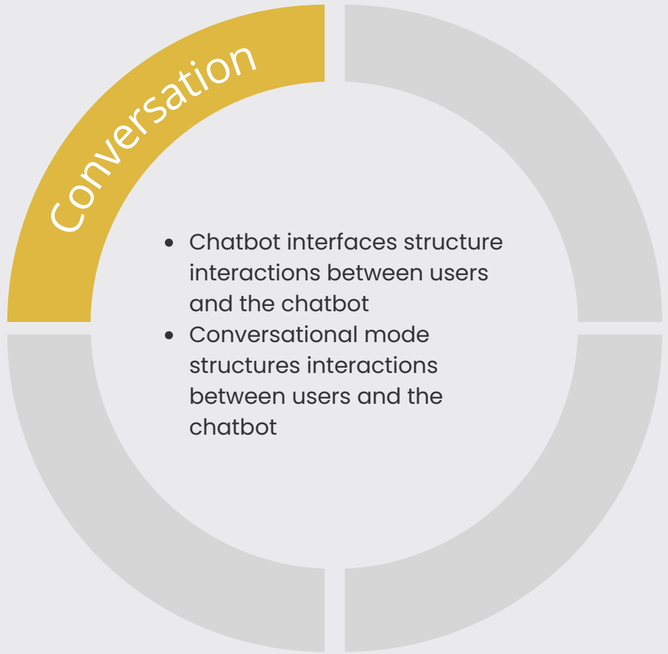
METHODOLOGY

KNOWLEDGE FRAMEWORK → ACTIVITY CONCEPTION → CHATBOT EVALUATION



METHODOLOGY

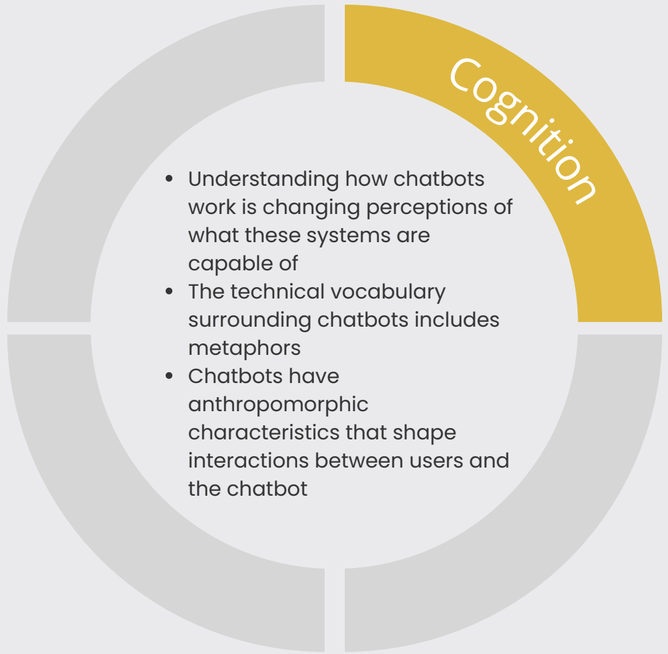
KNOWLEDGE FRAMEWORK → ACTIVITY CONCEPTION → CHATBOT EVALUATION



- Chatbot interfaces structure interactions between users and the chatbot
- Conversational mode structures interactions between users and the chatbot

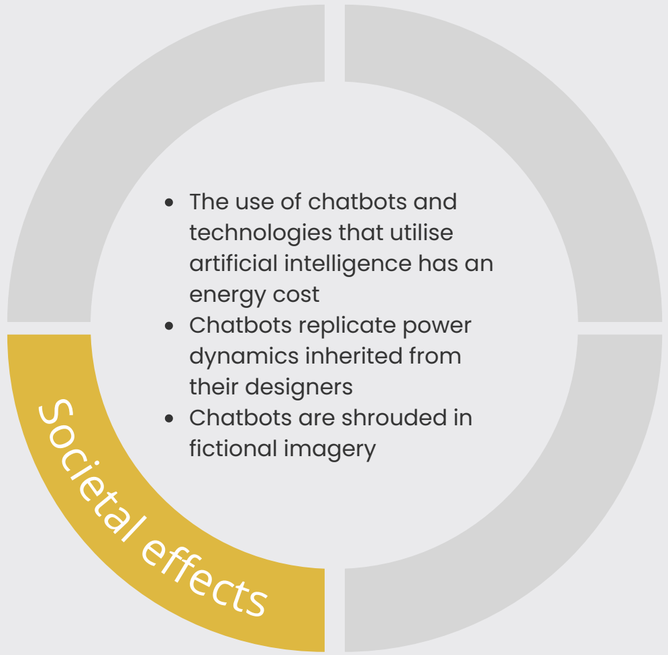
METHODOLOGY

KNOWLEDGE FRAMEWORK | ACTIVITY CONCEPTION | CHATBOT EVALUATION



METHODOLOGY

KNOWLEDGE FRAMEWORK → ACTIVITY CONCEPTION → CHATBOT EVALUATION



METHODOLOGY

KNOWLEDGE FRAMEWORK → ACTIVITY CONCEPTION → CHATBOT EVALUATION



- The way you interact with a chatbot affects the response it will provide
- The interaction context affects how you interact with a chatbot

METHODOLOGY

KNOWLEDGE FRAMEWORK | ACTIVITY CONCEPTION | CHATBOT EVALUATION

> Pedagogical scenarization (Musial *et al.*, 2011; Brassard & Daele, 2003)

> Conceptual design in accordance with the knowledge framework

> Technical development (at IFES, Brazil)

> Translation of the tool

METHODOLOGY

KNOWLEDGE FRAMEWORK | ACTIVITY CONCEPTION | CHATBOT EVALUATION

Why a chatbot?

→ Education through media: "*[a pedagogical activity] where media production is at the service of teaching*" (Piette, 2007)

→ design of a new tool (control over the pedagogical content and the interface)

→ few incorporations of AI techniques: an interface mimicking an AI-chatbot

METHODOLOGY

KNOWLEDGE FRAMEWORK | ACTIVITY CONCEPTION | CHATBOT EVALUATION

Why **an imitation of an AI-chatbot**?

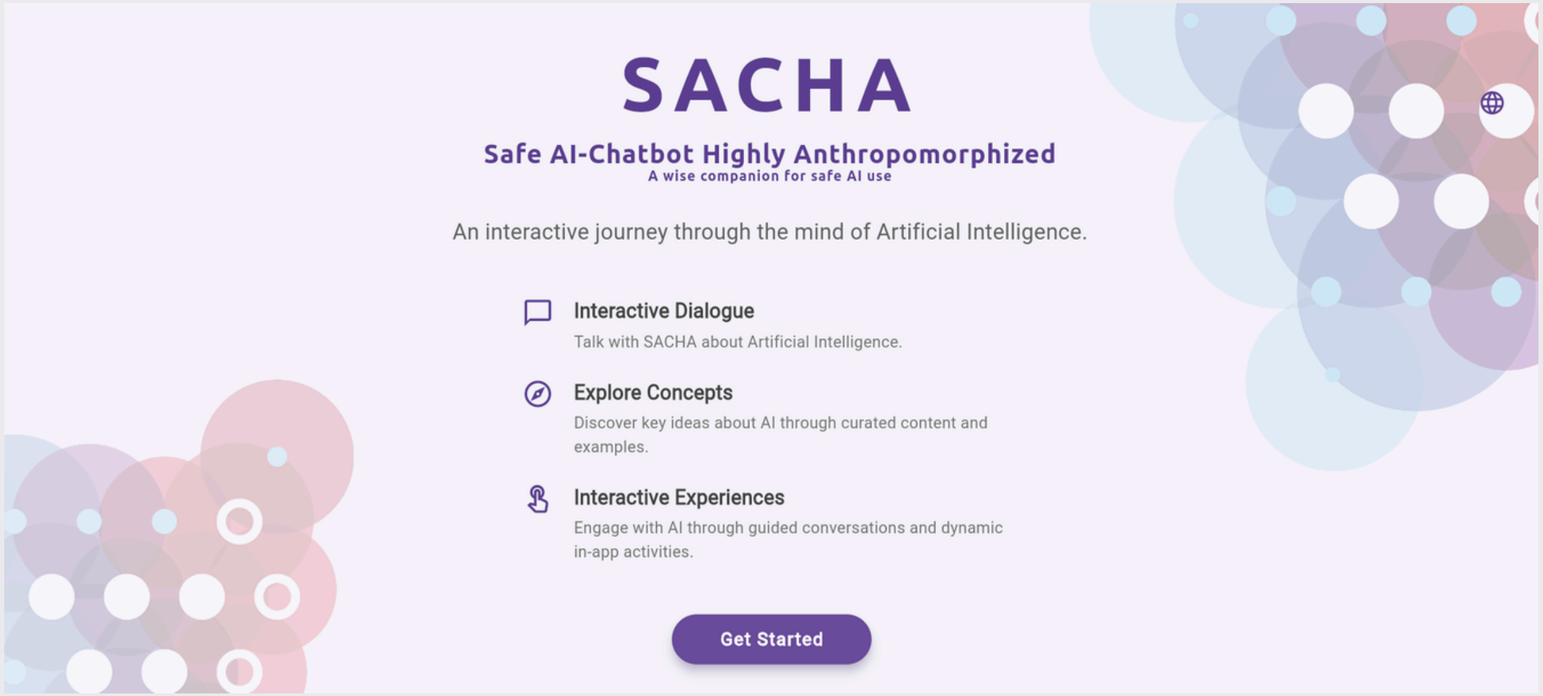
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METHODOLOGY

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METHODOLOGY

KNOWLEDGE FRAMEWORK → ACTIVITY CONCEPTION → CHATBOT EVALUATION

- Pre-experimentation questionnaire → *pre-attitudes and pre-knowledge*
- Post-experimentation questionnaire → *acquired knowledge*
- UX measure questionnaire (UEQ+) → *design evaluation*
- Semi-guided interview → *to deepen some themes and opinions*

DATA COLLECTION AND ANALYSIS

Belgium

3 teenagers

Pre/post-experimentation questionnaires, interviews, screen recordings

→ In an individual context
→ Exploratory methodology
→ Data collected was then integrated in the corpus

DATA COLLECTION AND ANALYSIS

Venda Nova Do Imigrante, Brazil

93 teenagers

Pre/post-experimentation questionnaires, 15 interviews

→ In a school context
→ Second iteration of the methodology
→ Data collected was then integrated in the corpus (n = 90)

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DATA COLLECTION AND ANALYSIS

Preliminary results

- Better comprehension of the representations of chatbots among teenagers
- Pre-experimentation questionnaires show preliminary knowledge on the “Cognition” dimension. Evolutions appear in the “Cognition” and “Conversation” dimensions
- Knowledge on “Reflexivity” dimension is absent
- UX measures show good reception of the design of SACHA

CURRENT QUESTIONS

> Attempt to analyze interviews conducted in Brazil

> Multicultural approach absent from our initial theoretical framework

> Absence of comprehensive phase around teenagers’ uses

> Highlighting elements of critics in chatbots… to use them in SACHA

> In the middle of AI literacy and media literacy

NEXT STEPS

> End of analysis

> Iteration of SACHA

> Iteration of the knowledge framework

> Second round of tests in Belgium



THANKS FOR PARTICIPATING. ANY QUESTIONS?

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